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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/747,781	12/29/2003	Frederick A. Jelley	60130-1734;02MRA364,368	6425
26096	7590	02/08/2005	EXAMINER	
CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009			BURCH, MELODY M	
			ART UNIT	PAPER NUMBER
			3683	

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

JE

 Office Action Summary	Application No. 10/747,781	Applicant(s) JELLEY ET AL.	
	Examiner Melody M. Burch	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 7,9-11 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8,12-15,17 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/29/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of species I in the reply filed on 1/26/05 is acknowledged.
2. Claims 7, 9-11, and 16 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 1/26/05.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: element 84 shown in figure 4. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities: in line 3 from the bottom of paragraph [28] a space should be included between “force” and “122”; element number “112” has been used to designate both applied force as shown in line 1 of paragraph [29] and ramped surfaces as shown in line 3 of paragraph [30].

Appropriate correction is required.

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification fails to provide proper antecedent basis for the term “predetermined gain” and also fails to provide proper antecedent basis for the phrase “moving the brake pad away from the rotatable brake member in response to a predetermined magnitude of gain in braking force” as claimed in claim 18.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 14, 15, 17, and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re: claim 14. The phrase “said support” lacks proper antecedent basis in the claim.

Re: claim 15. The phrase "step a.) comprises...varying said angle relative to the braking force" in lines 1-3 is confusing since the step of varying the angle appears to be similar to the step of changing a distance of the support relative to the rotatable member which is step b. Clarification is required.

Re: claim 18. The phrase "gain in braking force" in the last line is indefinite. It is unclear to the Examiner whether the gain in braking force in claim 18 is intended to be the same or different from that of claim 14. The remaining claims are indefinite due to their dependency from claim 14.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 8, 12-15, and 18 rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 3207267 to Beuchle et al.

Re: claims 1, 12, and 13. Beuchle et al. show in figure 2 a self-energizing brake assembly comprising: a support 5,18 pivotally mounted at an angle relative to a rotatable member 1, and a brake pad 3,11,12 movable along the support between engaged and disengaged positions with the rotatable brake member to generate a braking force between the brake pad and the rotatable brake member.

Re: claims 8, 14, and 18. In an alternate interpretation of claim 1, Beuchle et al. show in figure 2 a self energizing brake assembly comprising a support 3 pivotally

mounted at an angle relative to a rotatable member 1, and a brake pad 11,12 movable along the support as disclosed in col. 2 line 71-col. 3 line 5 and in col. 3 line 15-18 between engaged and disengaged positions with the rotatable member and the limitation of the assembly comprising a drive actuator 8 to apply a force to the brake pad via intervening elements by decreasing the angle between the rotatable brake member and the support as disclosed in col. 3 lines 15-20.

Re: claim 15. Beuchle et al. show in figure 2 the limitation wherein the step a.) comprises slidably (via the movement through slot 23 shown in figure 1) supporting the brake pad at an angle relative to the rotatable member and varying the angle relative to the braking force as disclosed in col. 3 lines 15-20.

10. Claims 14, 17, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 4852699 to Karnopp et al.

Re: claims 14 and 18. Karnopp et al. show in figures 3 and 5 a method of controlling braking force gain created by a self-energizing brake assembly comprising the steps of supporting a brake pad 11 relative to a rotatable brake member 10 and changing a distance of the support relative to the rotatable member via element 28 in response to a predetermined gain in braking force.

Re: claim 17. Karnopp et al. show in figures 3 and 5 the limitation of biasing the brake pad 11 toward engagement with the rotatable brake member 10 with an adjustable member 28 and moving the adjustable member in proportion to the braking force.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beuchle et al.

Beuchle et al. show in figure 2 the limitaiton wherein the brake pad 3,11,12 comprises an element 3 and a friction element 11,12 pivotally mounted to the element, but does not specifically show that the element 3 is a wedge.

Webster's Collegiate Dictionary 10th Edition defines a wedge as "something wedge-shaped". In light of the definition, Examiner notes that in In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) the court held that the configuration of a claimed object was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration was significant.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the shape of element 3 to have been a wedge or wedge-shaped (with the side in the area of element 21 being the untapered side of the wedge shape) or any other shape including a projected portion 21 as best determined by routine experimentation, in order to provide a support for the brake shoe and the

Art Unit: 3683

friction lining that provides the same function and occupies a minimum amount of space.

13. Claims 1-6, 8, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6371261 to Thompson et al. in view of Beuchle et al.

Re: claims 1, 12, and 13. Thompson et al. show in figure 1 a self-energizing brake assembly comprising: a support 18 mounted at an angle relative to a brake member 16, and a brake pad 26,32 movable along the support between engaged and disengaged positions with the brake member to generate a braking force between the brake pad and the brake member.

Thompson et al. fail to include the limitation of the support being pivotally mounted.

Beuchle et al. teach in figure 2 the use of a support 5 being pivotally mounted in a brake assembly.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the support of Thompson et al. to have been pivotally mounted, as taught by Beuchle et al., in order to provide increased self-energization of the brake. Examiner also notes that in *In re Stevens* 212 F.2d 188, 138 USPQ 248 (CCPA 1963) the court held that adjustability is not a patentable advance.

Thompson et al. fail to include the limitation of the member being a rotatable member.

Beuchle et al. teach in figure 2 the limitation of the member in the brake assembly being a rotatable brake member 1. It would have been obvious to one of

ordinary skill in the art at the time the invention was made to have modified the brake assembly of Thompson et al. to have been incorporated in the braking of a rotatable brake member such as a disc, in view of the teachings of Beuchle et al. in order to provide braking of an automotive vehicle or the braking of any other rotating component.

Re: claims 2 and 3. Thompson et al., as modified, describe the invention substantially as set forth above including the limitation wherein the brake pad comprises a wedge 26 and a friction element 32 mounted to the wedge. Thompson et al. fail to include the limitation of the friction element being pivotally mounted to the wedge.

Beuchle et al. teach in figure 2 the limitation of a brake assembly in which both a support 5 is pivotally mounted and a friction element 11,12 is pivotally mounted to a brake pad element 3.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the friction element of Thompson et al. to have been pivotally mounted, in order to provide an increased amount of self-energization in the brake. Examiner also notes that in *In re Stevens* 212 F.2d 188, 138 USPQ 248 (CCPA 1963) the court held that adjustability is not a patentable advance.

Re: claims 4, 5, 6, and 8. Thompson et al., as modified, teach in figure 1 of Thompson et al. the limitation of an adjustable member 22 biasing the support toward the rotatable member.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patents: 3185259 to Chouings and 4093042 to Pradon teach

Art Unit: 3683

the use of a self energizing brake having a pivotally mounted support and a brake pad comprising a wedge and a friction lining, 4014413 to Monka teaches a similar invention, DE-19850678 teaches the use of a brake having a pivotally mounted support, US Patent application 20030164270 to Baumann et al. teach the use of a self energizing brake acting on a rotor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 703-306-4618. The examiner can normally be reached on Monday-Friday (7:30 AM-4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 703-308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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February 3, 2005

Melody M. Burch

2/3/05